

Group Art Unit: 2833
Examiner: Gushi, R.



Atty. Ref.: FP01-003US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants : Masahide Hio
Eiji Kojima
Appl. No. : 09/893,931
Filed : June 28, 2001
For : INSULATION-DISPLACEMENT TERMINAL FITTING

Assistant Commissioner for Patents
Washington, D.C. 20231

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REPLY BRIEF

Sir:

This Reply Brief is submitted in triplicate in response to the Examiner's Answer dated February 25, 2003. This Reply Brief addresses only those issues that were raised for the first time in the Examiner's Answer.

The Examiner asserts that "one cannot show non-obviousness by attacking references individually where the rejections are based on a combination of references."

Counsel does not disagree with this position. However, it is necessary to consider the references individually to determine what the references teach to the person skilled in the art so that one can then determine how and/or whether the references should be combined. The main Brief on Appeal included sections VIII A., VIII B. and VIII C. which analyzed each of the references separately to determine what the references taught. However, pages 8-12 of the Brief considered the combination of those references.

Accordingly, it is believed that the analysis carried out in the Brief represents a correct response to a rejection under 35 USC 103.

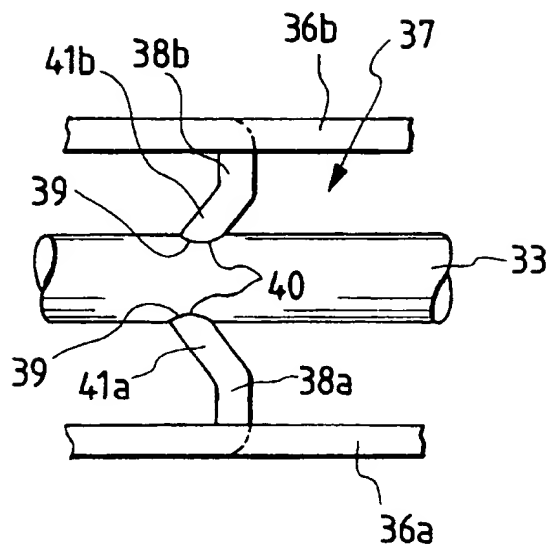
The Examiner's Answer clearly asserts that the rejection is not based on a reorientation of the locks 99 and 100 in Hoppe, Jr.. Rather, the Examiner explains that the rejection is based upon the Hoppe, Jr. locks 99 and 100 in exactly the orientation in which they are disposed.

At the outset, it must be emphasized that Hoppe, Jr. does not identify the elements 99 and 100 as locks. Rather, the Examiner has used that term to define the structures 99 and 100, presumably to imply that the structures perform the locking function necessary to support the Examiner's position. In fact, Hoppe, Jr. first refers to the elements 92 and 93 as "detents" that are "swedged to further form a transition zone 94 where the insulation is spread apart from the conductor." Hoppe, Jr. then refers to FIGS. 8-10 with "end detents 99-100". The detents 99 and 100 would perform the function of the other detents identified and described in that paragraph, namely to cut the insulation and spread the insulation apart from the conductor. The application openly acknowledges that such structures achieve very good contact with the conductor, and in fact the claimed invention includes such V-shaped contacts to achieve good connection with the conductor. Unfortunately, V-shaped contacts do not exhibit good resistance to pulling forces on the wire. This defect exists with the V-shaped contacts of the claimed invention and with the V-shaped detents of Hoppe, Jr.. The detents 99 and 100 would suffer this same deficiency and clearly are not "locks" as asserted in the Examiner's Answer.

The Examiner clarifies that Endo et al. is relied upon for the two sentences appearing at col. 7, lines 45 and 50. This paragraph refers to FIG. 6 of Endo et al. which is

reproduced below.

FIG. 6



The Endo et al. blades 41a and 41b are not planar as alleged in the Examiner's Answer. Rather, the blades 41a and 41b are formed to present a curved surface to the wire. The Examiner's Answer minimizes the applicants arguments regarding the plating on the terminal fitting. However, the teaching of Endo et al. regarding the plating is very significant in the interpretation of FIG. 6. Many terminal fittings are plated with a material (e.g., gold) that is more conductive than the base material of the terminal fitting. The terminal fitting then is formed so that the plated surface is brought into contact with the conductor of the wire. Endo et al. discusses this design objective in considerable detail, and the FIG. 6 structure of Endo et al. is formed so that a plated surface (not an edge) of Endo et al. cuts into the insulation and contacts the core. FIG. 6 clearly shows that the press-connecting blade 41a, 41b are cut only a shallow distance into the insulation and present a curved plated surface of contact to the conductor. Endo apparently considers this structure satisfactory for holding the wire

against an axially force. That conclusory statement by Endo et al., however, does not mean that Endo et al. considered alone or in combination with other references teaches all improved wire locks, such as the wire locks of the claims on appeal. Again, it is noted that the Examiner refers to "planar wire locks" of Endo et al. However, as shown above, the elements 41a and 41b are not planar, and Endo et al. does not refer to those structures as locks.

The Examiner's Answer refers to *In re Dance*, 48 USPQ2d 1635 (Fed. Cir. 1998) to rebut the applicants arguments that "because Hoppe, Jr. discloses benefits of using V-shaped insulation-displacement portions, it teaches away from using planar locks."

In re Dance considered issues that are clearly different from the issues here. In particular, *In re Dance* related to an application that claimed a catheter for removing an obstruction in a blood vessel. The claim on appeal defined several elements of the catheter, including "means for recovering fluid and debris." The Examiner relied upon a reference that showed a catheter with each of the recited elements of the claim except the means for recovering fluid and debris. The reference emphasized that its catheter was desirably simple and merely emulsified the obstruction and permitted the emulsified obstruction to be carried away by the bloodstream. The Examiner combined that reference with another catheter that had means for recovering fluid and debris. The applicant argued that the primary reference taught away from a more complex structure with means for recovering fluid and debris. The Court affirmed the final rejection and concluded that a teaching of emulsification is not a teaching away from debris recovery, and that a person of ordinary skill in that field would have realized the trade off between the simplicity of the primary reference and the capability of debris recovery in the secondary reference.

The Examiner's reference to *In re Dance* apparently was raised with respect to

the arguments in the last full paragraph on page 9 of the Brief. Those arguments are less relevant to the "teaching away" issues addressed by *In re Dance*, and more relevant to a consideration of whether Hoppe, Jr. and Endo et al. suggest their hypothetical combination. This is not an issue of whether the skilled artisan should lean more toward simplicity or complexity in a product design by including or not including an element, as in *In re Dance*. Rather, the issue is whether the references suggest their combination, when each reference individually emphasizes deficiencies in the structure taught by the other reference. More importantly, neither of the references teaches planar locks normal to the side walls and having first and second edges for cutting the insulation. Both references go to great extents to ensure that edges are not the furthest parts from the side walls so that surface regions of the respective deformed structures contact the conductor of the wire.

Finally, the Examiner asserts that McKee et al. is relevant in showing the usefulness of both V-shaped insulation displacement portions and planar locks. Once again, McKee et al. does not use the term "locks" to define the structures that the Examiner has chosen to refer to as "locks." Rather, McKee et al. makes no reference to those structures. The annotated McKee et al. figure in the main brief shows that the structures referred to by the Examiner are bent elements that are intended to resiliently trap the wire in the terminal fitting. These structures must be very flexible to perform their apparently intended function and must be constructed to avoid cutting into the wire.

The Board is urged to consider these arguments and to reverse the final

rejections. All remaining claims should be allowed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gerald E. Hespos", is written over the typed name.

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